

## **INDIGENOUS PEOPLE: WHEN CLIMATE CHANGE AFFECTS CULTURAL IDENTITIES**

“I am convinced that climate change, and what we do about it, will define us, our area and ultimately the global legacy we leave for future generations.”  
Secretary General Ban Ki-moon, 24 September 2007



Anthropogenic climate change is perhaps the ultimate manifestation of humans growing disconnection with the natural world. In the last 200 years industry, that causes the biggest part of climate problems, has been growing so fast and in strange ways, causing climate issues to grow and spread. However, those who are most affected by climate change are indigenous people who live their life in harmony with nature. Indigenous people are being forcibly removed from their lands by deforestation, sea-level rise and conflicts arising from resource scarcity.

The term “indigenous people” refers to those who inhabited a geographical region at the time when people of different cultures or ethnic origins arrived.

It is estimated that there are more than 370 million indigenous people spread across 70 countries worldwide.

They are often marginalized and face discrimination.

For these reasons in 1982 the Economic and Social Council (ECOSOC) established the Working Group on Indigenous Populations with the mandate to develop a set of minimum standards that would protect indigenous people.

The earth's climate has changed throughout the history. For instance, in the last 650,000 years there have been seven different glacial cycles. Earth-orbiting satellites and other technological advances have enabled scientists to see the bigger picture, collecting many different types of information about our planet and its climate on a global scale. There is no question that increased levels of greenhouse gases are causing the Earth to warm in response. Seas temperature have increasing by 0.302 degrees Fahrenheit since 1969. The Greenland and Antarctic ice sheets have decreased in mass. Glaciers are retreating almost everywhere around the world. Global sea level rose about 8 inches in the last century. Since the beginning of the Industrial Revolution, the acidity of surface ocean waters has increased by about 30 percent. All these changes are bringing

many problem to some of the indigenous communities. Canada has recognized that the aboriginal and northern communities of the country face unique challenges and that it is necessary to extend the assessment of vulnerabilities to climate change in order to include them. The aboriginal population are the first to face the direct consequences of climate change for their dependence and their close relationship with the environment. The main effect of this change are political and economic marginalization, loss of land and resources, violations of human rights, discrimination and unemployment. For example, in Himalaya glacial melting is affecting hundreds of millions of rural dwellers who use water deriving from ice sources. Indigenous people in the Arctic region relying on hunting of polar bears, walrus, seals and caribous, herding reindeer, fishing and gathering both for food to support their economy and for their cultural and social identity are experiencing issues. Therefore climate change poses threats and dangers to the survival of indigenous communities all around the world, mainly because of greenhouse emissions. In addition, indigenous peoples interpret and react to the impacts of climate change in creative ways, creating floating vegetable gardens or increasing demand for renewable energy using wind and solar power.

There are two principal characteristics which could make indigenous people key agents of change, for climate mitigation and adaptation: their wealth creation is based on principles of green economy and their unique knowledge. Indigenous people's economies primarily depend on natural resources and ecosystems. Their main productive benefit is natural capital, which they use in a sustainable manner. This latter is additionally complemented by their complicated cultural relationships with their environments and ecosystems, which they value more than simple economic gains. The economies of indigenous people around the world are governed by an economic model which, rather differently from that adopted by the most advanced ones, ensures that their natural capital is always sustainably organized. Although their habitats and ways of living are highly distinctive and differ widely one from another, they share the same sustainable way of wealth creation. Indigenous people's knowledge and cultural manners are necessary to interact with ecosystems as well as natural resources are unique, highly relevant and valuable for climate change adaptation. A growing body of research suggests that indigenous people have a long record of adaptation to climate variability and that their extreme suppleness mainly comes from their traditional understanding of the surroundings. For instance, climate-smart agriculture, as promoted by the Food and Agricultural Organization of the United Nations (FAO), tries to incorporate a combination of traditional and modern techniques based on genetic data-banks, set up by private and public initiatives, which benefit from and are often dependent from indigenous knowledge. Climate-smart agriculture is one of the most recent and widely promoted techniques aimed at mitigating and adapting to climate change, and it has generally proven to be highly effective in this setting.

The vulnerability of indigenous people to social, economic and environmental shocks could be significantly reduced both by including them in general social protection schemes and by conducting more targeted environmental services programs. The development of sustainable enterprises and the generation of livelihoods are also vital for enhancing better work opportunities for indigenous people. The diffusion of knowledge is the first crucial and necessary step for understanding both the distinction and the full scale and scope of indigenous people's vulnerability to climate change. Furthermore: scientific researches developed into the traditional knowledge, occupations, strategies and ways of life of indigenous people, which are still extremely limited, requiring specific attentions.

## Land use, climate change adaptation and indigenous peoples



Although indigenous people are very involved in climate change, they have been excluded until recently by decisions related to it.

The first step was taken in 2007, when the Conference of the Parties (COP) developed the "REDD +" (Reduction of Emissions from Deforestation and Forest Degradation). REDD + was created as a solution to mitigate climate change, fighting deforestation: it encourages developing countries to protect their forest heritage, stimulating them with the aim of reducing carbon emissions of forest land, with an eye towards one eco-sustainable development. Deforestation is in fact a major source of carbon emissions, almost 17% of global emissions. Indigenous people are very involved in the question: about 60 million indigenous people live in forest areas, on which their livelihood depends. Furthermore, they are involved in the care of these ecosystems.

Unfortunately, although COP recognized that indigenous people are very involved in this phenomenon, "REDD + projects are often launched in indigenous territories without the consent of those who live there," said the UN Special Rapporteur on the Rights of Indigenous People. In 2008, representatives of indigenous people established the International Forum of Indigenous People on Climate Change, with the aim of reaching agreements on negotiations in decision-making processes.

COP committed itself in the following years to sign a new universal agreement, which was legally binding also towards the natives. In 2015 the Paris agreement was adopted, the first act that brought all nations together in the cause to combat climate change, offering more support to countries in doing so. The central objective was to maintain the global increase in temperature below 2° C in relation to pre-industrial levels and to continue the action taken to limit this increase to 1.5 ° C. In 2015, the average temperature had already reached the 1° C threshold. The agreement came into force on 4 November 2016. It was a fundamental step for indigenous people: it recognized the indigenous involvement in the issue and committed itself to offering them the necessary support to combat the problem and to adapt to the new climate.

Today, according to the UN Declaration on the Rights of Indigenous People (written September 13, 2007), "Indigenous people, in exercising their right to self-determination, have the right to autonomy or self-government in matters concerning their affairs internal and local, as well as to have the means and the means to finance their autonomous functions "(Article 4). Despite this, the battle to guarantee their rights is yet to be concluded.

The life, culture and identity of indigenous people are strongly influenced by climate change. Their effect varies from place to place, depending on the local climate. Here is an analysis of the climatic conditions in the various parts of the planet:

- **Arctic:** it is the area with the most rapid and severe climate change. Temperatures doubled compared to the previous global average (positive temperatures of up to 6.2 ° C were recorded). This has brought many effects on the environment: the thawing of permafrost, the melting of snow, glaciers and sea ice, moving the vegetation and reducing

the fauna (due to higher sea temperature), changing the migration routes of many birds and bringing new species. It causes damage to the inhabitant's populations, many of whom base their economy on specific animal species. Climate change also affects food: it causes less access to wildlife, problems with food storage, and has led populations to buy expensive food in stores, having negative effects on health and culture. Furthermore, temperatures cause variations in the thickness of sea ice, making it more fragile and putting travel at risk.

- **High Mountains:** also, in this area the climate changes are causing the melting of ice. This is leading to an increase and excess in water availability, causing floods and landslides. However, in the long run, it will cause water stress, bringing changes in the cultural life of indigenous people. For example, the Himalayan populations, which have always had a strong and positive relationship with nature, depend on it for their spiritual rituals. This causes a lot of suffering to the people, putting at risk their cultural heritage.
- **Tropical forests:** this area is very affected by deforestation and forest fragmentation, predisposing the territory to fires. Deeper seasons are occurring, groundwater loss, which, in addition to reducing biodiversity, affects indigenous populations (almost 1,400 in Asia, Africa and Latin America). Furthermore, disease vectors have proliferated.
- **Semi-arid and arid lands:** these lands, already affected by a dry climate, are subject to worsening: more prolonged droughts, dust storms, sudden and violent rains, damage to vegetation and breeding, food safety problems and malnutrition. Women are one of the most affected groups: their jobs require water, which is in short supply. This forces them to make longer journeys in search of this indispensable resource, leading them to leave school to devote themselves to work. Furthermore, many ceremonies require specific climatic conditions, compromised by the climate. Even in Australia, the Aboriginal population is subject to high rates of disease due to extreme weather conditions.
- **Pacific and small islands:** climate change has led to rising sea levels, causing land erosion, which could disappear, and the intrusion of salt water into drinking water sources. In addition, floods destroy the homes of many families, forcing them to move. They are often subject to discrimination because of their different culture.

The climate of the world we live in has changed throughout history. All these changes bring lot of problems in whole communities. The aboriginal population is the first to face the direct consequences of climate change caused by its dependence and their closed relationship with the nature. The main effect of these changes are: political and economic marginalisation, loss of land and resources, violations of human rights, discrimination and unemployment. All these changes are altering the cultural and social identity of these populations. Climate change is causing threats and dangers to the survival of indigenous communities all around the world, and a big part of such threats is caused by greenhouse emissions. Indigenous people interpreted and reacted to the impacts of climate change in many ways as edifying floating vegetable gardens or increasing demand for renewable energy using solar, water and wind power. It is unbelievable that everyone as human being does not understand how our behaviour can damage the only place where we can live.

The indigenous are the original inhabitants of a given region, their life style is linked with the surrounding ecosystem for that reason indigenous life, culture and identity are strongly influenced by climate change. They have been excluded in resolutions until the development of "REDD+" that was created as a solution to mitigate climate change. After the REDD+ there were two meeting, once in 2008 and another one in 2015. Although the three resolutions were adopted the battle to guarantee their rights is still open. It is estimated that there are more than 370 million indigenous people spread across 70 countries worldwide, their existence is strongly threatened by the climate change what will happen to them if the UN stop preventing that phenomenon?

Written by:

Cecilia Alfano

Ettore Carnio

Claudia Bettioli

Chiara Cappelletto

Sara Castellano

Camilla Frank

Federica Raccanello

Elisa Quaggio